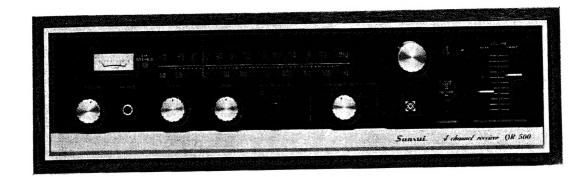
# Original



# OPERATING INSTRUCTIONS & SERVICE MANUAL

4-CHANNEL RECEIVER

**SANSUI QR-500** 





SANSUI ELECTRIC CO., LTD.

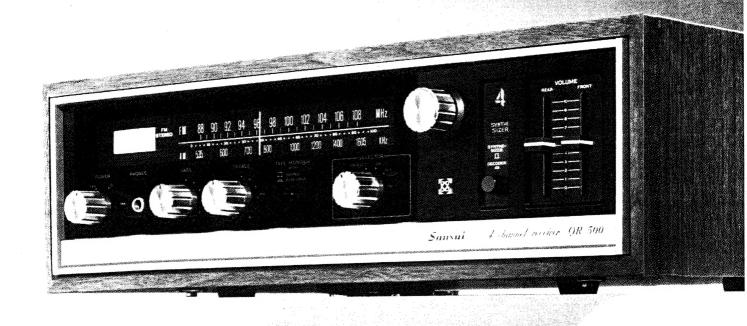
Congratulations on joining the thousands of proud, satisfied owners of quality stereo components from Sansui.

The Sansui QR-500 4-channel receiver incorporates Sansui's unique QS Synthesizing/Decoding matrix (patents pending) that produces a multi-dimensional sound field so enthusiastically received by many audio experts as purely 'revolutionary'. An instrument that literally heralds the new age of 4-channel stereo sound reproduction, the QR-500 not only converts ordinary 2-channel stereo discs, tapes and FM broadcasts into immensely richer 4-channel stereo sound, but, working in the capacity of a decoder, restores any 2-channel material encoded from four channels to its original full-fledged 4-channel status.

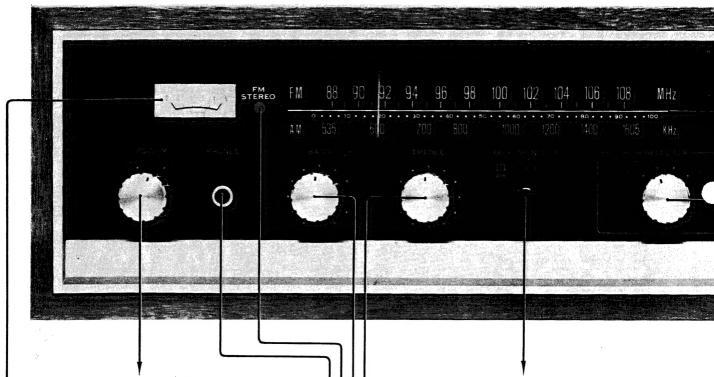
To enjoy dynamic life-like 4-channel stereo sound at its best, you should be well acquainted not only with the operation of the various controls of the QR-500, but with such matters as the proper positioning of speaker systems. Read carefully the instructions contained in this booklet, and you will be better prepared to take full advantage of the advanced performance capabilities of this new instrument for years to come.

# **CONTENTS**

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# SWITCHES AND CONTROLS



### Power Switch

The receiver is turned on when the POWER switch is turned to the ON or right position.

### Headphones Jack -

The PHONES jack accommodates headphones for monitoring or private listening of the front channel. Plug the headphones into the jack and the sound from speakers will be automatically cut off. Dynamic headphones are recommended for use.

### **Tuning Meter**

This meter aids in pinpointing a station. The station is perfectly tuned when the needle swings as far to the right as possible.

### FM Stereo Indicator -

This indicator glows when the dial pointer crosses a station making an FM stereo broadcast. It remains lit during the stereo reception.

### Tape Monitor Switch

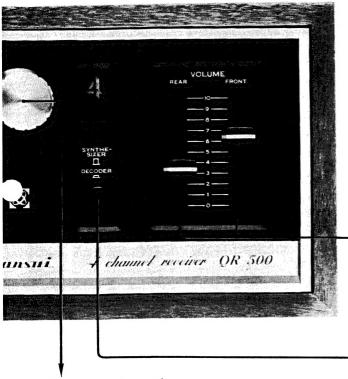
When this switch is once depressed, the amplifier is set to play the sound from the playback head of the 2-channel tape deck connected to the 2-CH TAPE PLAYBACK jacks on the rear panel of the amplifier. When it is again depressed to go back to its original position, the program source is heard from the speakers. Tape monitoring is possible only with a tape deck having separate record and playback heads. Except for such playback or monitoring, this switch must be in the SOURCE position.

### Treble Control

The TREBLE control adjusts the intensity of the treble tones of the front speakers simultaneously. To emphasize the treble, turn the control clockwise. To diminish the treble, turn the control counterclockwise.

#### Bass Control

The BASS control adjusts the intensity of the bass tones of the front speakers simultaneously. To emphasize the bass, turn the control clockwise. To diminish the bass, turn the control counterclockwise.



### Tuning Knob

Turn the knob to find the desired station.

#### Dial Scales

The upper scale is for FM, the lower for AM. Find your desired station on each band by turning the TUNING knob.

#### Selector Switch

PHONO—Selects a record player connected to the PHONO inputs on the rear panel of the amplifier.

FM AUTO-Selects FM programs.

AM-Selects AM programs.

AUX (4CH)—Selects the output of a component, such as a 4-channel tape deck, etc., connected to the 4CH AUX jacks on the rear of the amplifier.

### Volume Controls

The FRONT VOLUME control adjusts the total volume of sound from the two front speakers, the REAR VOLUME control the two rear speakers. These controls are also used to adjust the balance between the front and rear channels.

To listen to an ordinary 2-channel stereo temporarily, set the SYNTHESIZER/DECODER switch to the SYNTHESIZER position and slide the REAR VOLUME control down to the 0 position. The two-channel signals, not converted into 4 channels, will be heard from the front speakers.

# Synthesizer/Decoder Switch

- —Use this position to convert any ordinary 2-channel stereo source into 4 channels. To have the live listening experience in a concert hall, the 'Front 2-2 System' of speaker position is more effective (see page 7).
- —With the switch in this position, the original 4-channel material which has been encoded into two channels at the recording or broadcast end is recovered for 4-channel playback. The '2-2 system' of speaker position (see page 7) is more effective to re-create a hall-ambience around the listener. It also works well with ordinary two-channel materials of pop, rock, mood music, Moog sound, etc.

# **CONNECTIONS / OPERATIONS**

# Connecting the Front and Rear Speakers

Two stereo pairs of 4- to 16-ohm speakers can be connected to the QR-500. All connections in the top row of the SPEAKERS terminals are for the front speakers, and in the bottom row for the rear speakers. The speakers on your left, front and rear, when facing the front speakers should be connected to the LEFT terminals of the QR-500, and the speakers on your right to the RIGHT terminals. The plus terminals of your speakers should be connected to the red terminals of the QR-500, and the minus or common terminals to the black terminals.

### Connecting a Record Player

A record player using a magnetic cartridge can be played through the QR-500. Connect the left channel output of the record player to the LEFT PHONO input of the amplifier, and the right channel output of the record player to the RIGHT PHONO input.

#### FM Antennas

### Indoor Dipole Antenna:

The 300-ohm folded dipole antenna (supplied) is for indoor use in urban or strong-signal areas. Connect the two leads from the dipole to the ANTENNA terminals marked FM  $300\,\Omega$  on the rear panel, open the dipole antenna to a full 'T' and tack it up on a wall behind the component cabinet. It is necessary to position the antenna for the best signal pickup before the antenna is permanently tacked.

#### Outdoor Antenna

An outdoor antenna is recommended for optimum performance in all areas. Best results will be obtained with a rotator-driven antenna specifically designed for FM. Rotate the antenna until the best pickup is obtained. If the antenna is installed near a well-traveled street, it may pickup ignition noise. In this case, move it back from the street.

Connect the 300-ohm lead-in to the ANTENNA terminals marked FM  $300\Omega$  on the rear panel.

#### AM Antennas

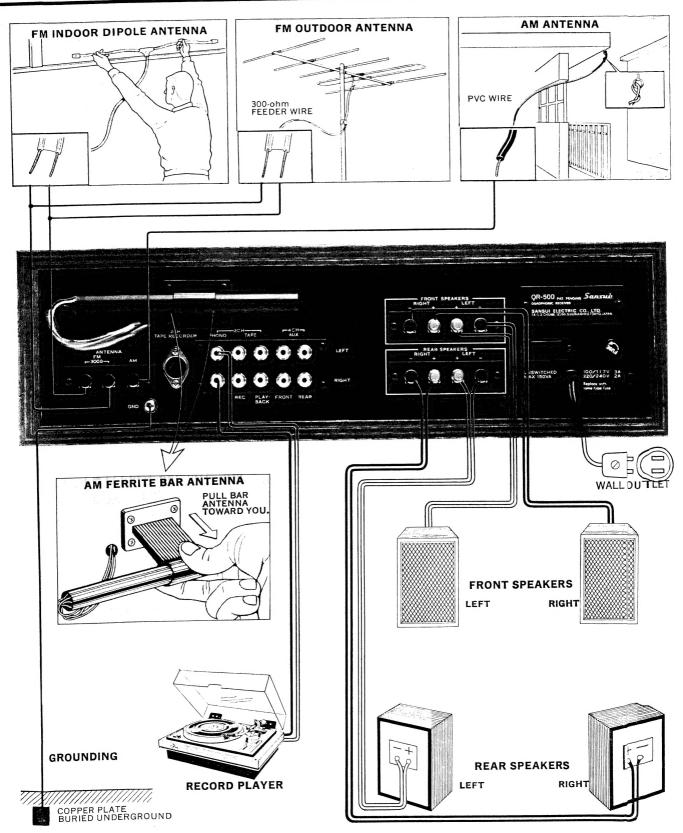
The highly sensitive ferrite bar antenna, located on the rear panel of the QR-500, is usually adequate for AM reception. Pull it toward you away from the back of the chassis. In weak-signal or fringe areas, a simple outdoor antenna may suffice. Connect one end of PVC wire (supplied) to the ANTENNA terminal marked AM and hook another end outdoors as illustrated on page 6.

### Listening to Discs

- **1.** Set the SELECTOR switch of the QR-500 to the PHONO position.
- **2.** Make appropriate settings of controls on the turntable connected to the QR-500. Start playing the disc.
- **3.** Adjust the VOLUME controls of the QR-500 for the desired total volume of sound from the four speakers, and then for the desired balance between the front and rear channels.
- **4.** Use the BASS and TREBLE controls according to your preference or the room acoustics.

### Listening to FM or AM Programs

- **1** Set the SELECTOR switch to FM AUTO or AM.
- **2.** Turn the TUNING knob to reach the desired station. The station is perfectly tuned when the needle in the TUNING meter swings as far to the right as possible. The FM STEREO indicator glows when an FM stereo broadcast is received. It remains lit during the stereo reception.
- **3.** Adjust the VOLUME controls for the desired total volume of sound from the speakers and for the desired balance between the front and rearchannels.
- **4.** Use the BASS and TREBLE controls according to your preference or the room acoustics.



# TAPE DECKS/PLACEMENT OF SPEAKERS

# Connecting Tape Decks 2-Channel Tape Deck

There are two types of receptacles for connection of a 2-channel tape deck on the rear panel of the QR-500: one is for pin plugs and the other for the DIN plug.

To connect your tape deck to the pin jacks:

- 1. Connect the left channel output of the tape deck to the left channel jack marked 2CH TAPE PLAY-BACK, and the right channel output of the deck to the right channel jack marked 2CH TAPE PLAY-BACK.
- **2.** Connect the left channel input of the tape deck to the left channel jack marked 2CH TAPE REC, and the right channel input of the deck to the right channel jack marked 2CH TAPE REC.

If you want to use the DIN connecting cord, just insert the DIN plug into the receptacle marked 2CH TAPE RECORDER on the rear panel of the QR-500.

### 4. Channel Tape Deck

The QR-500 is also provided with playback jacks for a 4-channel tape deck (not provided with recording jacks). Connect the outputs of the tape deck to the jacks marked 4CH (AUX) on the rear of the QR-500. Be sure connect the right and left, front and rear channels correctly as shown on page 8. The AUX input jacks, of course, can accept other components than the 4-channel tape deck.

# Operating Tape Decks

### Recording with a 2-Channel Tape Deck

- **1.** Set the SELECTOR switch to the program source (PHONO, FM AUTO or AM) to be recorded.
- 2. Start the tape deck in the recording mode.
- **3.** Make appropriate settings of controls on the tape deck. The recording is not affected by the controls of the QR-500.
- **4.** Set the TAPE MONITOR switch of the QR-500 to PLAYBACK if you want to monitor the recording with the tape deck having separate heads for recording and playback.

# Listening to Tapes with a 2-Channel Tape Deck

**1.** Depress the TAPE MONITOR switch to the PLAYBACK position.

- 2. Start the tape deck in the playback mode.
- **3.** Adjust the VOLUME controls of the QR-500 for the desired volume of sound from the speakers and for the desired balance between the front and rear channels.
- **4.** Use the BASS and TREBLE controls of the QR-500 according to your preference or the room acoustics.

# Listening to Tapes with a 4-Channel Tape Deck

- 1. Turn the SELECTOR switch to AUX (4CH).
- 2. Start the tape deck in the playback mode.
- **3.** Adjust the VOLUME controls of the QR-500 for the desired volume of sound from the speakers and for the desired balance between the front and rear channels.
- **4.** Use the BASS and TREBLE controls of the QR-500 according to your preference or the room acoustics.

### Placement of Speakers

Basically there are two ways to place two pairs of speaker systems in the 4-channel stereo:

#### 2.2 System (Fig. 1)

This is the speaker-in-each-corner placement that is being widely accepted as the standard speaker position for 4-channel stereo. This position permits the listener to enjoy music surrounded by the four speaker systems.

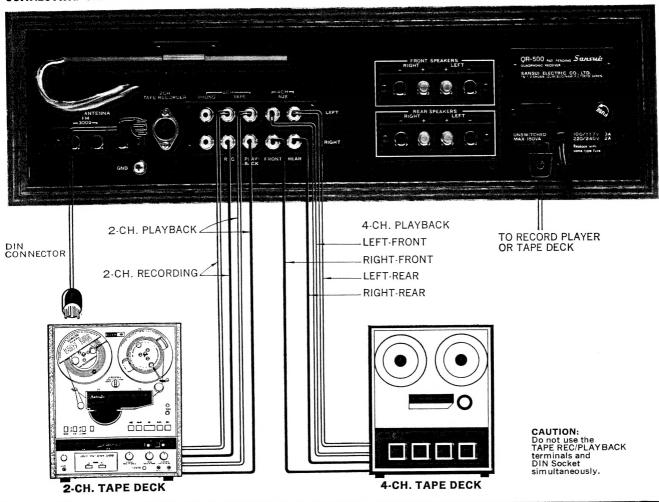
#### Front 2-2 System (Fig. 2)

This system is designed to create a live sound field in the listening area. The sound field is equivelent to the stage of a concert hall and the listener will have the live listening experience in the hall. With the SYNTHESIZER/DECODER switch in its SYNTHESIZER position, this system is more effective.

#### Compatible Placement (Fig. 3)

Place the rear speaker systems as shown in Fig. 3, p. 8, and the listener will be able to enjoy both systems in the limited space available. To enjoy the '2-2 system', he should situate himself near point A, and to enjoy the 'front-2-2 system', near point B.

# CONNECTING TAPE DECKS



# PLACEMENT OF SPEAKERS

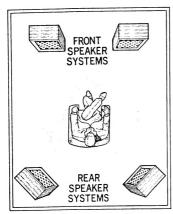


Fig. 1 2-2 SYSTEM

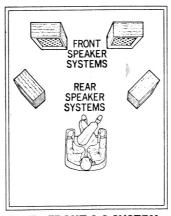


Fig. 2 FRONT 2-2 SYSTEM

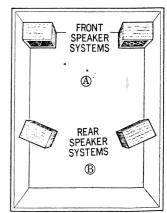


Fig. 3 COMPATIBLE PLACEMENT

# SIMPLE MAINTENANCE HINTS

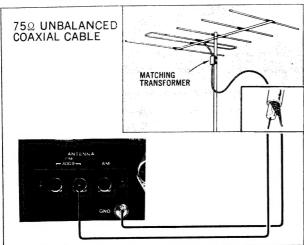
# How to Eliminate Radio Noise On AM Programs

AM reception noise can often be eliminated by slightly changing the position of the receiver. Some noises are peculiar to a certain broadcasting frequency or a certain time of day. Such noises result from the nature of AM signals. In fringe or weak-signal areas, connect the AM antenna (supplied) to the AM ANTENNA terminal as shown on page 6.

#### On FM Programs

Noise on FM programs may be attributed to either insufficient antenna input or interference from other electrical appliances. In fringe or weak-signal areas, install an outdoor multi-element antenna with a rotator and position it for best signal pickup.

If it is installed near a well-traveled street, it may pick up ignition noise. In this case, move it back from the street. If still noisy, use coaxial cable (unbalanced 75-ohm) in place of the 300-ohm lead-in. Attach a matching transformer  $(300\,\Omega\!\to\!75\,\Omega)$  to the antenna and then connect the center conductor to either  $300\,\Omega$  terminal, and the shield to the GND terminal on the rear panel of the QR-500.

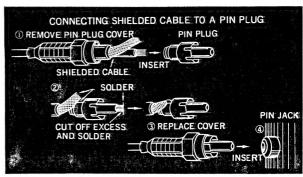


# Connection of Components

Use the shielded cables to connect the audio components such as a tape deck, record player, etc. to the QR-500. These cables not only keep the distributed capacity to a minimum but are very stable against environmental changes. The use of ordinary lamp cord usually results in picking up hum. Generally, the longer the connecting cable, the more the

treble notes tend to be attenuated. It is therefore wise to keep their length below 7 feet or so.

The shielded cable is made up for use as illustrated below:



### Grounding

Connect a PVC or enameled wire from the GND terminal to a grounded metal conductor such as a cold-water pipe, copper plate or carbon rod. Never connect it to a gas pipe. The grounding eliminates the possibility of hum and may reduce noise on radio programs.



# Power and Quick-Acting Fuses

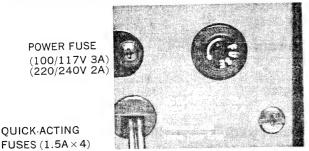
If there is no sound from all speakers and the pilot light is off when the power switch is turned on, check the power fuse on the rear panel. Should the power fuse blow, remove the AC line cord and replace the blown fuse with a new glass-tubed fuse of the same capacity (3-ampere fuse required for 100-117 volt operation; 2-ampere unit for 220-240 volt operation). Please purchase the new fuse from your nearest electric goods store.

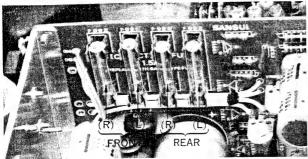
If the pilot light is on but there is no sound from both or either of the front and/or rear speaker systems, check the quick-acting fuses. If the right-front fuse, for example, should blow, the right-front

speaker system becomes dead. To reach the fuses, remove the AC line cord from its outlet and then the bonnet from the chassis. After eliminating the cause of the blowout, replace the blown fuse with a new 1.5-ampere fuse (supplied). The trouble may be attributed to the shorted output circuit or excessively large input.

If the new fuse blows when the power switch is turned on, contact your nearest Sansui dealer or Authorized Service Station.

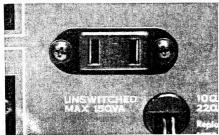
Caution: Never use a piece of wire or a fuse of different capacity, even as a stop-gap measure, or serious danger could result.





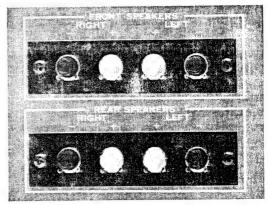
#### AC Outlet

The AC outlet on the rear panel is live at all times and independent of the power switch. Its maximum rating is 150VA. It is dangerous to connect a component with a bigger power requirement. Before connecting any component, make sure its power requirement does not exceed 150VA.



### Phasing of Speakers

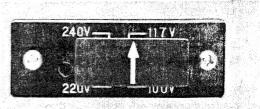
If the polarities (plus and minus) of the front left and right speaker systems are not identical, sound from them will lack a sense of natural sound, and also be weak in the bass range. The same applies to the polarities of the rear left and right speaker systems. Make sure the plus terminals of each speaker system have been connected to the corresponding red terminals of the QR-500, and the minus terminals of each speaker system to the corresponding black terminals. If the sound is still unnatural, the rear speakers should be changed in position and direction until natural 4-channel stereo effect is obtained.



### Voltage Adjustment

To reach the voltage selector, remove the two screws from the name plate on the rear panel, then remove the name plate. The voltage selector makes it possible to operate the QR-500 at the correct volt in any area. The volt has been pre-adjusted at our factory, but can be easily readjusted as follows:

- 1. Set the arrow on the voltage selector plug to the required volt: 100, 117, 220 or 240.
- 2. The power fuse should be changed, if required. For 100-117 voltage operation, a 3-ampere fuse is required. For 220-240 voltage operation, a 2-armpere fuse is required.



# **SPECIFICATIONS**

#### **AUDIO SECTION**

POWER OUTPUT

MUSIC POWER (IHF): 60W at 4 ohms load

40W at 8 ohms load

CONTINUOUS POWER: 11W x 4 at 4 ohms load

8W×4 at 8 ohms load

TOTAL HARMONIC DISTORTION:

less than 1% at rated output

INTERMODULATION DISTORTION: (60Hz: 7,000Hz=4:1

SMPTE method) less than 1%

POWER BANDWIDTH: 30 to 30,000Hz at 8 ohms load

FREQUENCY RESPONSE: (at normal listening level)

30 to 30,000Hz ±2dB

CHANNEL SEPARATION: (at 1,000Hz, rated output)

better than 50dB

HUM AND NOISE (IHF)

PHONO: less than -60dB AUX: less than -70dB

INPUT SENSITIVITY (at rated output, 1,000Hz)

PHONO (2-CHANNEL): 3mV (50k ohms)
4-CHANNEL INPUT: 180mV (50k ohms)
TAPE MON (pin): 180mV (50k ohms)
TAPE RECORDER (DIN): 180mV (50k ohms)

RECORDING OUTPUT (at rated output, 1,000Hz)

TAPE REC (pin): 180mV
TAPE RECORDER (DIN): 30mV
LOAD IMPEDANCE: 4 to 16 ohms

DAMPING FACTOR: 50 at 8 ohms load EQUALIZER PHONO: RIAA NF Type TONE CONTROLS (Front channel only)

BASS: +10dB, -10dB at 50HzTREBLE: +10dB, -10dB at 10,000HzLOUDNESS: (Volume control at -30dB)

+6dB at 50Hz

TUNER SECTION

< FM >

TUNING RANGE: 88

88 to 108 MHz

SENSITIVITY

20dB QUIETING: 2.5 $\mu$ V IHF: 5.0 $\mu$ V

TOTAL HARMONIC DISTORTION: less than 1% SIGNAL TO NOISE RATIO: better than 50dB

SELECTIVITY: CAPTURE RATIO:

3dB

IMAGE REJECTION:

IF REJECTION:

better than 45dB better than 60dB

better than 35dB

SPURIOUS RESPONSE REJECTION:

better than 60dB

STEREO SEPARATION:

better than 30dB at 400Hz

SPURIOUS RADIATION: less than 34dB

<AM>

TUNING RANGE: 535 to 1,605kHz

SENSITIVITY:  $350 \mu V$  at 1,000kHz (bar antenna)

IMAGE FREQUENCY REJECTION:

better than 50dB at 1,000Hz

IF REJECTION:

better than 45dB at 1,000Hz

SELECTIVITY: better than 20dB

SYNTHESIZER SECTION

INPUT LEVEL

RATED INPUT (2-channel): 180mV (50k ohms)

FREQUENCY RESPONSE

FRONT CHANNEL: 20 to 20,000Hz ± 1dB

REAR CHANNEL: 20 to 20,000Hz + 1dB - 2dB

REAR CHANNEL PHASE SHIFT

LEFT: -90 degrees at 300Hz RIGHT: +90 degrees at 600Hz

**SEMICONDUCTORS** 

TRANSISTORS: 50
FET: 1
DIODES: 23
IC: 3

**POWER REQUIREMENTS** 

POWER VOLTAGE: 100, 117, 220, 240V 50/60Hz POWER CONSUMPTION: 60W (max. signal)

**DIMENSIONS** 

445mm (17 $\frac{9}{16}$ ") W × 132mm (5 $\frac{1}{8}$ ") H × 306mm (12 $\frac{1}{16}$ ") D

WEIGHT

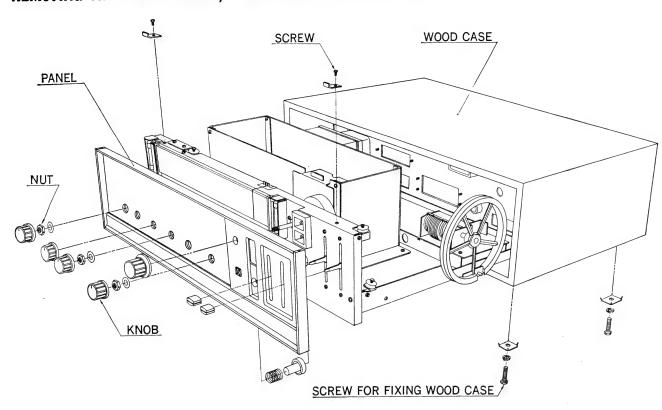
7.6kg (16.8 lbs.)

<sup>\*</sup> Design and specifications subject to change without notice for improvements.

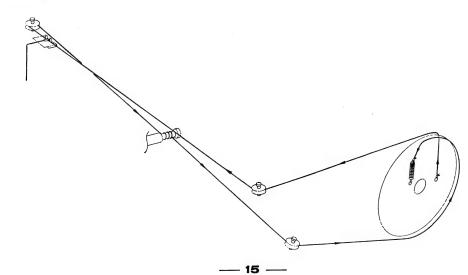
# **DISASSEMBLY PROCEDUR**

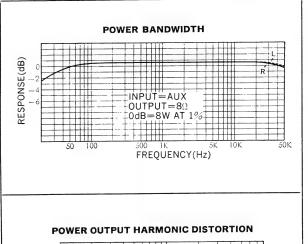
# CHARACTERISTICS / ACCESSORIES

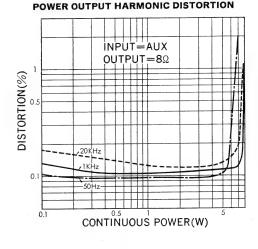
# REMOVING THE FRONT PANEL, WOOD CASE AND BOTTOM BOARD

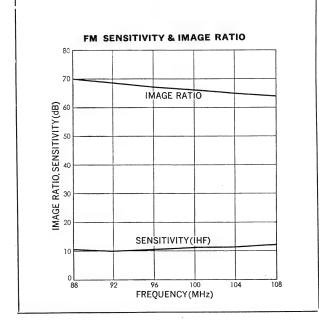


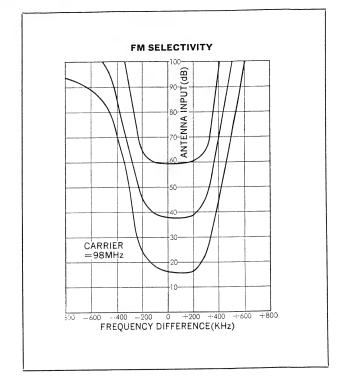
# **DIAL MECHANISM**







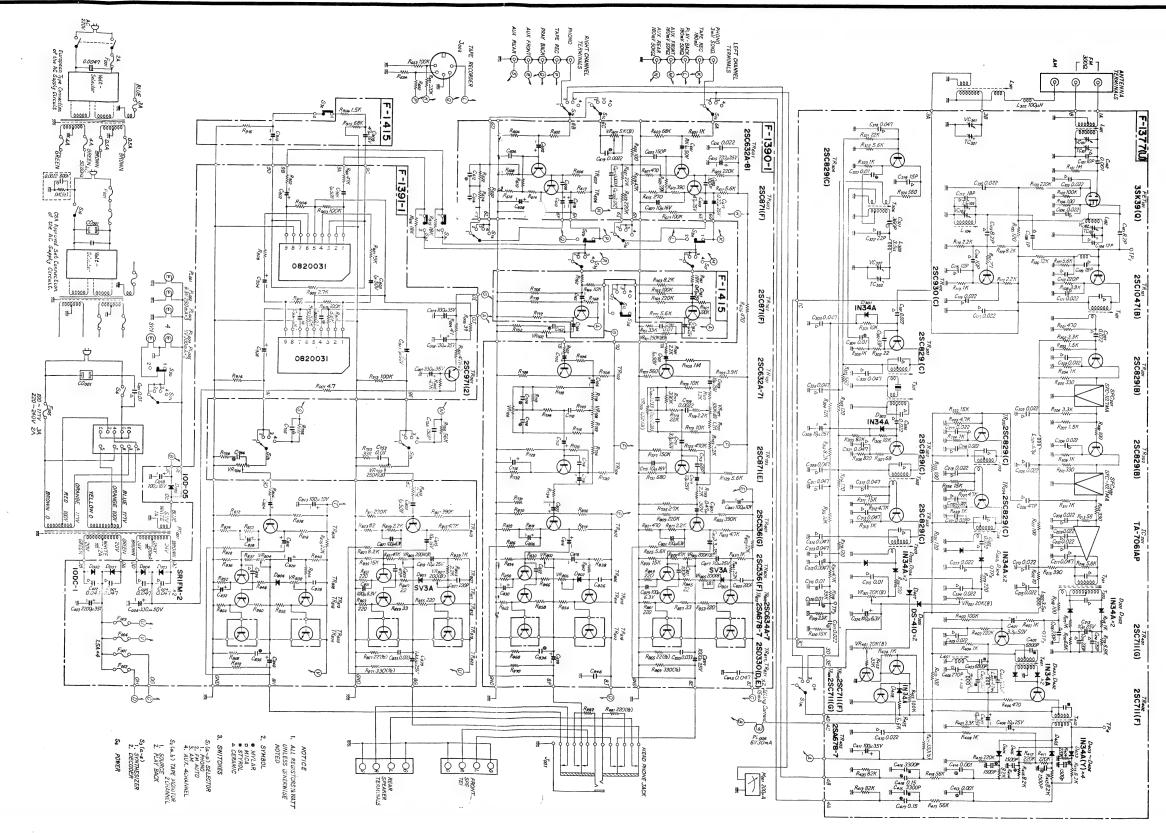




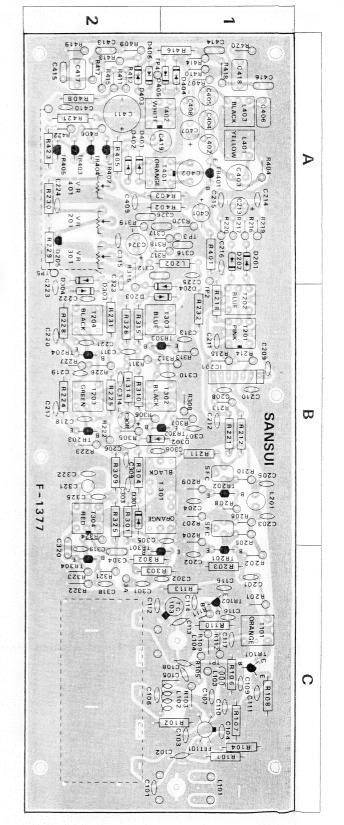
### **ACCESSORIES**

		-
1.	OPERATING INSTRUCTIONS	
	AND SERVICE MANUAL	1
2.	OPERATING SHEET	1
3.	FM ANTENNA	1
4.	AM ANTENNA	1
5.	PIN-PLUGS	4
6.	QUICK ACTING FUSES (1.5A)	2
7.	BUTTERFLY BOLTS	2
8.	WASHERS	2

# **SCHEMATIC DIAGRAM**



W		Х			Υ	Z	
C116	0.022μF)				0656223	10	
C117	0.022µF				0656223	1 C	
C201	0.0224F				0656223	1 C	
C202	0.022 µF } +	80%	25 V	CC.	0656223	1 C	
C203	0.022µF				0656223	1 B	
C204	0.022µF				0656223	1 B	
C205	0.022µF)				0656223	1 B	
C206		10%	50 V	CC.	0660470	2 B	
C208	0.022μF\				0656223	1 B	
C209	0.022µF				0656223	1 B	
C210	$0.022 \mu F$	80%	25 V	CC.	0656223	1 B	
C211	0.047 µF				0656473	1 B	
C212	0.022µF				0656223	1 B	
C213	10μF		25 V	EC.	0513100	1 A	
C214	220 pF )				0660221	1 A	
C215		10%	50 V	CC.	0660221	1 A	
C216	220 pF				0660221	1 A	
C217	0.022µF)				0656223	2 B	
C218	0.022µF				0656223	2 B	
C219	0.022μF				0656223	2 B	
C220	0.022µF				0656223	2 B	
C221	0.022µF \ _	-80 04			0656223	2 B	
C222	0.022µF ( -	-80 % -20 %	25 V	CC.	0656223	2 B	
C223	0.022µF				0656223	2 B	
C224	0.022µF				0656223	2 A	
C225	0.022μF				0656223	1 A	
C301	0.022µF)				0656223	2 C	
<b>C</b> 302	33 pF =	±10%	50 V	CC.	0660330	1 C	
C303	0.047μF ±	-80 % -20 %	25 V	CC.	0656473	2 C	
C304		±10%	50 V	MC.	0601107	2 C	
C305	0.047µF\				0656473	2 B	
C306	0.022µF	-80 % -20 %	25 V	CC.	0656223	1 B	
C307	0.047μF	-20:			0656473	1 B	
C308	10μF		25 V	EC.	0513100	2 B	
C309	0.047 uF)				0656473	2 B	
C310	0.047μF	-80 % -20 %	25 V	CC.	0656473	1 B	
C311	0.047 µF	-20			0656473	2 B	
C312		±10%	50 V	MC.	0601476	2 A	
<b>C</b> 313	0.047 µF)				0656473	1 B	
<b>C</b> 314	0.047μF >	-80 % -20 %	25 V	CC.	0656473	2 B	
C315	0.01 µF	-20			0656103	2 A	
<b>C</b> 316	0.01 ((F)	/			0601107	1 A	
<b>C</b> 317	0.022 UF	±10%	50 V	MC.	0601227	2 A	
<b>C</b> 318	0.047 µF	-80 % -20 %	25 V	CC.	0656473	2 C	
<b>C</b> 319		±10%	50 V	CC.	0660150	2 C	
C320	the contract of the contract o	±10%		MC.	0601107	2B,	С
C321		± 5 %	50 V		0620361	2 B	
C322		±10%		CC.	0660220	2 B	
					0656473	2 A ,	В
C323		-80 % -20 %		CC.			٦
C324	100μF			EC.	0511101	2 A	
<b>C</b> 325	0.047μF	-80 % -20 %	25 V	CC.	0656473	2 B	
<b>C</b> 326		±10%	50 V	MC.	0601107	1 A	
C401	3.3 µF			EC.	0515339	1 A	
-401	J. 5.5						
C402	6800 pF)	± 5 %	50 V		0620682	1 A	



# GENERAL TROUBLESHOOTING CHART

If the receiver is otherwise operating satisfactorily, the more common causes of trouble may generally be attributed to the following:

- **1.** Incorrect connections or loose terminal contacts. Check the speakers, record player tape deck, antenna and power cord.
- 2. Improper operation. Before operating any audio com-

ponent, be sure to read its manufacturer's instructions.

- **3.** Improper location of audio components. The proper positioning of components, such as speakers and record player is essential to the maximum stereo enjoyment.
- 4. Defective audio components.

The following are more other common causes of malefunction and what to do about them.

PROGRAM	SYMPTOM	PROBABLE CAUSE	WHAT TO DO
AM, FM or MPX reception	A. Constant or intermittent noise heard at times or in certain areas	* Discharge or oscillation caused by electrical appliances, such as fluorescent lamp, D.C. motor, or rectifier  * Insufficient antenna input due to ferroconcrete wall or long distance from station	* Attach noise limiter to electrical appliance producing noise, or attach it to the receiver's power source  * Reverse power cord plug/receptacle connections  * Keep receiver at proper distance from other electrical appliances  * Install antenna for maximum antenna efficiency. See "ANTENNA" in operating instructions
FM, or FM MPX reception	sion conditions of stat efficiency. As a result	* Poor noise limiter effect or too low S/N ratio due to insufficient antenna input  fected considerably by transmision, such as power and antennate, you may receive one stationing another station poorly.	* Install dipole antenna (supplied) for maximum signal strength  * If this does not prove effective, use exclusive FM outdoor antenna  * Excessively long antenna may cause noise
	B. A series of pops	* Ignition noise caused by starting of nearby auto- mobile engine	* Install antenna and its lead-in wire at proper distance from street or in- crease antenna input as discribed before
	C. Channel separation deteriorates during reception	* Excess heat	* Circulation of room air is important to receiver. Be sure that receiver is well ventilated
Record playing or tape playback	A. Hum or howling	* Record player placed directly on speaker * Wire other than shielded cable used * Loose terminal contact	* Place cushion between record player and speaker cabinet or place them away from each other * Connecting shielded cable should be as short as possible
	B. Surface noise	* Worn or old record  * Worn phono stylus  * Phono stylus is dusty  * Improper stylus pressure	* Recondition playback head of tape deck or the stylus of record player * Turn TREBLE control counterclock- wise
4-Channel stereo playback	A. Position of musical instruments and voice not clear	* Incorrect phasing of speakers or input connections	* Check phasing of speakers and input connections  * The rear speakers should be changed in position and direction

# PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. X: Parts Name Y: Stock No. Z: Position of Parts

# TUNER BLOCK (F-1377U)

W		x	Y	Z
D	1140		0101105	10
R101	$\Omega$ MI		0101103	10
R102	100kΩ			10
R103	220kΩ		0100224	
R 104	100Ω		0101101	10
R105	120Ω		0100121	1 C
R106	12kΩ		0101123	1 C
<b>R</b> 107	5.6kΩ		0101562	1 C
<b>R</b> 108	3.9kΩ		0101392	1 C
R109	8.2kΩ		0100822	1 C
<b>R</b> 110	2.2k $\Omega$		0101222	10
Rm	27Ω		0100270	1 C
R112	2.2k $\Omega$		0100222	10
<b>R</b> 113	lkΩ		0101102	10
R201	470Ω		0100471	1 C
R202	3.3kΩ		0100332	1 C
R203	1.5kΩ		0101152	10
R204	lkΩ		0100102	1 B
R205	330Ω		0100331	1 B
R206	3.3kΩ		0100332	1 B
R207	1.5kΩ		0100152	18
R208	100Ω		0100101	1 B
R209	lkΩ		0100102	1 B
R210	330Ω		0100331	1 B
R211	lkΩ		0101102	1 B
R212	330Ω	•	0101331	18
R213	56Ω		0100560	1 B
R214	5.6kΩ		0100562	1 B
R215	390Ω		0100391	1 B
R216	lkΩ	±10% ¼W CR.	0100102	1.A
R217	lkΩ		0100102	1 A
R218	100Ω		0101101	18
R219	6.8kΩ		0100682	1 A
R220	6.8kΩ		0100682	1 A
R221	100Ω		0101101	1 B
R222	15kΩ		0100153	2 B
R223	4.7kΩ		0100472	2 B
R224	lkΩ		0101102	2 B
R225	100Ω		0101101	2 B
R226	15kΩ		0100153	28
R227	4.7kΩ		0100472	28
R227	lkΩ		0101102	2 B
	220Ω		0101221	2 A
R229	120Ω		0101121	2 B
R231	10Ω		0101100	1 B
R232	10kΩ		0101103	2 B
R301	22Ω		0101220	2 C
R302	1kΩ		0101102	2 C
R303	12kΩ		0101123	28
R304	82kΩ		0100823	2 B
R305	1		0100103	2 B
R306	10kΩ		0100680	1 B
R307	68Ω		0100821	1 B
R308	820Ω		0100821	2 B
R309	120Ω		0101121	2 B
R310	8.2kΩ		0101822	2 B
R311	15kΩ		0100133	1 B
R312	4.7kΩ		0100472	1 B
R313	$  1k\Omega  $	1	0100102	10

W	X	Y	Z
R314	120Ω	0101121	2 B
R315	10kΩ	0101103	2 B
R316	220Ω	0100221	2 B
R317	4.7kΩ	0100472	1 A
R318	39kΩ	0100393	1 A
R319	3.9kΩ	0100392	2 A
R320	15kΩ	0100153	1 A
<b>R</b> 321	22kΩ	0100223	2C
R322	5.6kΩ	0100562	2 C
R323	lkΩ	0100102	2 C
R324	560Ω	0100561	2 B
R325	560Ω	0101561	2 B
R326	120Ω	0101121	2 B
R401	1kΩ	0101102	1 A
R402	100kΩ	0101104	1, 2 A
R403	220kΩ	0101224	1, 2 A
R404	1kΩ ( ±10% 1/4W CR.	0100102	1 A
R405	100Ω	0101101	2 A
R406	470Ω	0100471	2 A
R407	3.3k Ω	0100332	1 A
R408	lkΩ	0101102	2 A
R409	220kΩ	0100224	2 A
R410	220kΩ	0100224	1 A
R411	220kΩ	0100224	2 A
R412	220kΩ	0100224	2 A
R413	8.2kΩ	0100822	2 A
R414	8.2kΩ	0100822	1 A
R415	8.2kΩ	0100822	2 A
R416	8.2kΩ	0101822	1, 2 A
R417	56kΩ	0100563	2 A
R418	56kΩ	0100563	1 A
R419	82kΩ	0100823	2 A
R420 R421	$82k\Omega / 330\Omega \pm 10\% \frac{1}{2}W$ SR.	0100823	1 A 2 A
R421	330 $\Omega$ ±10% ½W SR.	0111331	2 A
R424	1kΩ ±10% ¼W CR.	0101104	2 A
R424	5.6kΩ	01014/2	2 A
			1
VR201	20kΩ (B) FM Meter Adj.	1032122	2 A
VR301	20kΩ (B) AM Meter Adj.	1032122	2 A
VR401	20kΩ (B) Stereo Indicator Adj.	1032122	2 A
C101	10pf + 10% 50 V CC.	0664100	2C
C102	0.001 μF ± 10% 50 V CC.	0654102	10
C103	0.022μF)	0656223	10
C104	$0.022 \mu F \begin{pmatrix} +80 \\ -20 \% \end{pmatrix}$ 25 V CC.	0656223	10
C105	0.022 <i>μ</i> F )	0656223	1 C
C106	$12 \text{ pF}$ $\pm 10\% 50 \text{ V CC}$ .	0661120	2 C
C107	8.2 pF)	0661829	1 C
C108	1 pF ±0.25pF 50 V CC.	0661109	1 C
C109	18 pf \ ± 10% 50 V CC.	0661180	1 C
C110	220 pF)	0660221	10
C111	$0.022 \mu F + \frac{80}{20}\%$ 25 V CC.	0656223	10
C112	18 pF )	0669019	2C
C113	8.2 pF ±10% 50 V CC.	0669015	1 C
C114	10 pi	0664100	1C
C115	10 pF /	0664100	10

# PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. X: Parts Name Y: Stock No. Z: Position of Parts

# TUNER BLOCK $\langle F\text{-}1377U \rangle$ Continued

W	X	Y	Z
C404	1000 pF) . 5 % 50 V 66	0620102	1 A
C405	100 pF ± 5 % 50 V SC.	0620101	1 A
C406	270 pF ± 5 % 50 V MiC.	0640271	1 A
C407	10 (/F)	0513100	1 A
C408	$10\mu$ F 25 V EC.	0513100	1 A
C409	\	0656223	2 A
C410	$\begin{pmatrix} 0.022 \mu F \\ 0.022 \mu F \end{pmatrix} + \frac{80}{-20}\%$ 25 V CC.	0656223	2 A
C411	100 μF 35 V EC.	0514101	2 A
C411	0.001 ((F)	0601106	2 A
C413	$0.001\mu F$ $\pm 10\% 50 V MC.$	0601106	1 A
C414		0620332	2 A
C415	$3300 \text{ pF}$ $\pm 5 \% 50 \text{ V SC.}$	0620332	1.4
	' ;	0601158	2 A
C417	$0.15\mu F$ $\pm 10\%$ 50 V MC.	0601158	1 A
C418	0.15μF) = 5 % 50 V SC	0620272	1, 2 A
C419	2700 pF ± 5 % 50 V SC.	0820272	1,20
/C101~10	3 Voriable Capacitor	1220090	
FET101	3SK39 (Q)	0370080	10
TR101	2SC1047 (B)	0305800	10
TR102	2SC930(C)	0305790	10
TR201		0305460	10
TR202	2SC829 (B)	0305460	1 B
TR203		0305461	2 B
TR204		0305461	2 B
TR301		0305461	2 C
	2SC829 (C)	0305461	1 B
TR302		0305461	1, 2 B
TR303		0305461	2 C
TR304	200711(6)	0305733	1 A
TR401	2SC711(G)	0305733	2 A
TR402	2SC711(F)	0305732	2 A
TR403	)		2 A
TR404	2SC711(G)	0305733	
TR405	2SA678-7	0300292	2 A
IC201	TA-7061AP	0360060	1 B
D201	1	0310400	1 A
D202		0310400	1 A
D202	N34A	0310400	2 B
D203		0310400	1 B
D204 D205	DS430	0340090	2 A
	\	0310400	2 B
D301		0310400	1 B
D302 D303		0310400	2 B
	) IN34A	0310400	2 B
D304		0310400	2 A
D401		0310400	2 A
D402	(	0310401	2 A
D403		0310401	1 A
D404	) IN34A (Y)	0310401	2 A
D405			2 A
D406	/ ,,,,,,,	0310401	į.
D408	IN34A	0310400	2 A
T101	FM IFT	4235790	10
T201	FM Discriminator	4235750	18

W	X	Y	Z
T203	C-11	4235770	2 B
T204	FM Meter Coil	4235780	2 B
<b>T</b> 301	CFU-73B Ceramic Filter	4230550	1, 2 B
T302	AM IFT	4230510	1,2B
T303	AMIFI	4230500	1,2B
T304	AM OSC Coil	4220280	2 B
T401	MPX Coil	4240630	1,2A
T402	MPA COII	4240620	1, 2 A
L101	FM Antenna Coil	4200370	10
L102	FM RF Coil	4210090	1 C
L103	Choke Coil	4290110	1 C
L104	FM OSC Coil	4220270	1 A
L201	)	4900030	1 B
L202	Peaking Coil	4290011	1,2A
L303	)	4290011	
L401	MPX Coil	4240640	1 A
L402	Ferri Inductor	4900030.	1 A
L403	MPX Coil	4240610	1 A
SFC201	SFC-10.7MA Ceramic Filter	0910120	1 B
SFC202	SFC-10.7MA Ceramic Filter	0910120	18

# FRONT CHANNEL BLOCK (F-1390-1)

W	X	Y	Z
R601	1kΩ \	0101102	1 A
R602	1kΩ	0101102	2 A
<b>R</b> 603	68kΩ	0101683	1 A
R604	68kΩ	0101683	2 A
R605	220kΩ	0101224	2 A
R606	220kΩ	0101224	2 A
<b>R</b> 607	470Ω	0101471	1 A
R608	470Ω	0101471	2 Å
R609	220kΩ	0101224	1 A
R610	220kΩ	0101224	2 A
R611	5.6kΩ	0101562	1 A
R612	5.6kΩ	0101562	2 A
R613	390Ω	0101391	1 A
R614	390Ω	0101391	2 A
R615	270Ω	0101271	1 A
R616	270Ω	0101271	2 A
R617	100kΩ	0101104	1 A
R618	100kΩ	0101104	2 A
R619	4.7kΩ	0101472	1 A
R620	4.7kΩ	0101472	2 A
R621	22kΩ	0101223	1 A
R622	22kΩ	0101223	2 A
R623	220kΩ	0101224	1 A
R624	220kΩ	0101224	2 A
R625	100Ω	0101101	2 A
R 626	470Ω	0101471	2A, B
R701	2.2kΩ	0101222	1 A
R702	2.2kΩ	0101222	2 A
R703	IMΩ > ±10% 1/4W C	CR. 0101105	1 A
<b>R</b> 704	1ΜΩ	0101105	2A, B
R705	3.9kΩ	0101392	1 A
R706	3.9kΩ	0101392	2A, B
R707	560Ω	0101561	1 A
R708	560Ω	0101561	2 A
R709	10kΩ-	0101103	1 B
R710	10kΩ	0101103	2 B
<b>R</b> 711	330kΩ	0101334	1 B
R712	330kΩ	0101334	2 B
<b>R</b> 713	22kΩ	0101223	1 B
<b>R</b> 714	22kΩ	0101223	2 B
<b>R</b> 715	10kΩ	0101103	1 B
R716	10kΩ	0101103	28
<b>R</b> 717	1.2kΩ	0101122	1 A
R718	1.2kΩ	0101122	2 A
<b>R</b> 719	2.2kΩ	0101222	1 B
<b>R</b> 720	2.2kΩ	0101222	2 B
R721	1.2kΩ	0101122	1 B
<b>R</b> 722	1.2kΩ	0101122	2 B
<b>R</b> 723	2.2kΩ	0101222	1 B
R724	2.2kΩ	0101222	2 B
<b>R</b> 725	470kΩ	0101474	1 B
R 726	470kΩ	0101474	2 B
R727	150kΩ	0101154	1 B
R 728	150kΩ	0101154	2 B
<b>R</b> 729	5.6kΩ	0101562	1 B
R 730	5.6kΩ	0101562	2 B
		0101681	1 B

W	x	Y	z
<b>R</b> 732	(2089	0101681	2 B
<b>R</b> 733	2.2kΩ	0101222	1 B
<b>R</b> 734	2.2kΩ	0101222	2 B
R735	27kΩ	0101273	1 B
R736	27kΩ	0101273	2 B
R805	390kΩ	0101394	1 B
R806	390kΩ	0101394	2 B
R809	220kΩ	0101224	1 B
R810	220kΩ	0101224	2 B
R813	4.7kΩ	0101472	1 B
R814	4.7kΩ	0101472	2 B
R817	2.2kΩ	0101222	1 B
R818	2.2kΩ	0101222	2 B
<b>R</b> 821	470Ω	0101471	1 8
R822	470Ω	0101471	2 B
R825	5.6kΩ	0101562	1 B
R826	5.6kΩ ±10% ¼W CR.	0101562	2 B
R829	47kΩ \ _10/6 /4 VV CR.	0101473	1 C
R830	47kΩ	0101473	2 C
R833	15kΩ	0101153	1 B
R834	15kΩ	0101153	2 B
R837	lkΩ	0101102	1 C
R838	lkΩ	0101102	2 C
R841	2.2kΩ	0101222 0101222	1 C 2 C
R842 R845	$2.2k\Omega$ $22\Omega$	0101222	1 C
R846	22 \Omega	0101220	2 C
R849	220Ω	0101221	1 C
R850	220Ω	0101221	2 C
R853	220Ω	0101221	1 C
R854	$220\Omega$	0101221	2 C
R857	33Ω	0101330	1 C
R858	33Ω	0101330	2 C
R861	220Ω	0101221	1 C
R862	220 \Omega)	0101221	1 C
R865	22Ω	0111220	1 C
R866	$\frac{22\Omega}{3300}$ ( ±10% ½W SR.	0111220	2 C
R869	33022	0111331	1 C
R870	$330\Omega$ / $22k\Omega$ $\pm 10\%$ $\frac{1}{4}$ W CR.	0111331	2 C
R873	22K11 ±10% /4 VV CR.	0101223	20
VR601	$5k\Omega$ (B) FM Stereo Separation Adj.	1031092	2 A
<b>VR</b> 801	)	1031152	1 C
<b>VR</b> 802	$\}$ 200k $\Omega$ (B) AC Balance Adj.	1031152	1 C
VR805	300 O (B) DC Bin Adi	1031022	2 C
VR806	$\left.\right\}$ 200 $\Omega$ (B) DC Bias Adj.	1031022	1 C
C601	1μξ)	0519101	1 A
C602	$1\mu F$ RN 50 V EC.	0519101	2 A
C603	150pF)	0660151	1 A
C604	150pF	0660151	2 A
C605	100pF \ ±10% 50 V CC.	0660101	1 A
C606	100pF)	0660101	2 A
C607	$10\mu\text{F}$ 16 V EC.	0512100	1 A
C608	10μF }	0512100	2 A

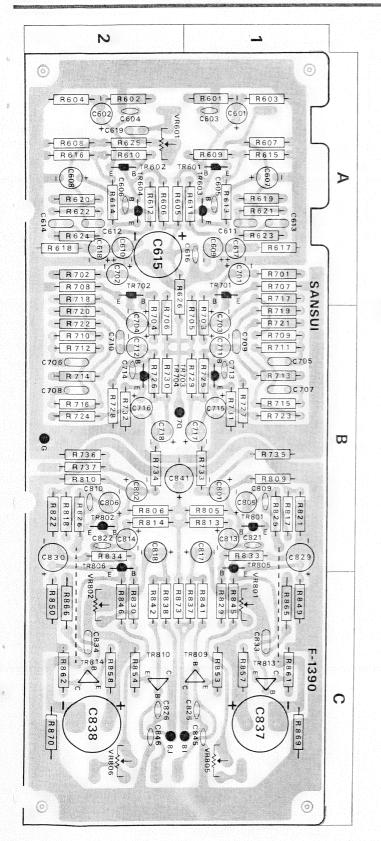
# PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. X: Parts Name Y: Stock No. Z: Position of Parts

# FRONT CHANNEL BLOCK $\langle F\text{-}1390\text{-}1 \rangle$ continued

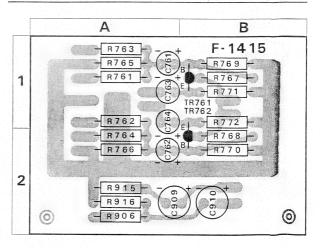
w	X		Y	Z
C609	4.7 μF )	25 V EC	0513479	1 A
C610	$4.7 \mu\text{F}$	25 V EC.	0513479	2 A
C611	0.0033 µF \		0601336	1 A
C612	0.0033.45		0601336	2 A
<b>C</b> 613	$0.012\mu F$ $\pm 10\%$	50 V MC.	0601127	1 A
C614	0.012 <i>μ</i> F		0601127	2 A
C615	220 μF	25 V EC.	0513221	1 A
C616	$0.022 \mu F + \frac{+80}{-20}\%$	25 V CC.	0656223	1 A
C617	0.22μF)		0563228	1.A
C618	0.22μF }	25 V AEC.	0563228	2 A
C619	, ,	50 V MC.	0601226	2 A
C703	10μF)	00 1 1110.	0513100	1 B
C703	10μF	25 V EC.	0513100	2 B
C704	0.033 μF)		0601337	1 B
			0601337	2 B
C706	0.033 μF		0601337	1 B
C707	$0.033 \mu F \ \pm 10\%$	50 V MC.	0601337	2 B
C708	0.033 μF		0601226	1 B
C709	0.0022μF		0601226	2 B
C710	0.0022μFJ		0515339	1 B
C711	$3.3\mu$ F	50 V EC.	0515339	1
<b>C</b> 712	3.3 μF J			2 B
C713	68pF \ ±10%	50 V CC.	0660680	1 B
C714	68pr)		0660680	2 B
C715	10μF }	16 V EC.	0512100	1 B
C716	10μF J		0512100	2 B
C717	10μF }	25 V EC.	0513100	1 B
C718	10μF J		0513100	2 B
C801	0.47 μF }	50 V EC.	0515478	1 B
C802	$0.47 \mu\text{F}$		0515478	28
C805	100 μF )	6.3 V EC.	0510101	1 B
C806	100 <i>μ</i> F J	0.0 / 20.	0510101	2 B
C813	3.3 <i>μ</i> F )	35 V EC.	0514339	1 B
C814	3.3 μF )	00 ( 20.	0514339	28
C817	10 μF )	25 V EC.	0513100	1 B
C818	10 <i>μ</i> F∫	25 7 10.	0513100	2 B
C821	100pF)		0660101	1 B
C822	100pF	50 V CC	0660101	2 B
C825	220pf ( ± 10%	50 V CC.	0660221	10
C826	220pF		0660221	2 C
C829	100 μF )	6.3 V EC.	0510101	1 B
C830	100 μF )	6.3 V EC.	0510101	2 B
C833	0.033 μF)	50 V MC	0601337	10
C834	$0.033 \mu F$ $\pm 10\%$	50 V MC.	0601337	2C
C837	1000μF)	05 1/ 50	0513102	1 C
C838	1000μF}	25 V EC.	0513102	2C
C841	100μF	10 V EC.	0511101	2 B
C845		40 W 66	0657473	10
C846	$0.047 \mu F$ $+80 \%$ $0.047 \mu F$ $-20 \%$	50 V CC.	0657473	2 C
TR601	} 2SC632A-81		0305762	1 A
TR602	1		0305762	2 A
TR603	} 2SC871 (F)		0305472	1 A
TR604	!		0305472	2 A
TR701	2SC632A-7 (white	,)	0305766	IA
TR702	)	,	0305766	2 A
TR703	2SC871 (E)		0305471	1 B
TR704			0305471	2 B

W	×	Y	Z
TR801	000004(0)	0305156	1 B
TR802	2SC536 (G)	0305156	2 B
TR805	000000000000000000000000000000000000000	0305155	1B, 0
TR806	2SC536 (F)	0305155	2B, C
TR809	2SC634A (6, 7)	0305891, 2	10
TR810	25C634A (6, 7)	0305891, 2	2 C
TR813	2SA678 (6, 7)	0300291, 2	1 C
TR814	23/0/0 (0, /)	0300291, 2	2C



### BLEND BLOCK (F-1415)

W	X		Υ	Z
<b>R</b> 761	18kΩ\		0101183	1 A
R762	18kΩ		0101183	1 A
<b>R</b> 763	8.2kΩ		0101822	1 A
R764	10kΩ		0101103	2 A
<b>R</b> 765	100kΩ		0101104	1 A
R766	100kΩ		0101104	2 A
R767	220kΩ		0101224	1 B
<b>R</b> 768	220kΩ > ±10%	1/4 W CR.	0101224	2 B
R769	220kΩ		0101224	1 B
<b>R</b> 770	220kΩ		0101224	2 B
R771	5.6kΩ		0101562	1 B
<b>R</b> 772	5.6kΩ		0101562	1 B
R906	1.5kΩ		0101152	2 A
R915	68kΩ		0101683	2 A
R916	68kΩ)		0101683	2 A
<b>C</b> 761	0.47 μF)		0563478	1 A
C762	0.47 μF	2011 (222)	0563478	2 A
<b>C</b> 763	0.47 μF	25 V AEC.	0563478	1 A
C764	0.47 μF		0563478	1 A
C909	47 μF)	14 14 50	0512470	2 A
C910	47μF}	16 V EC.	0512470	2 A
TR761	2SC871 (F)		0305472	1 B
TR762	2SC871 (F)		0305472	2 B



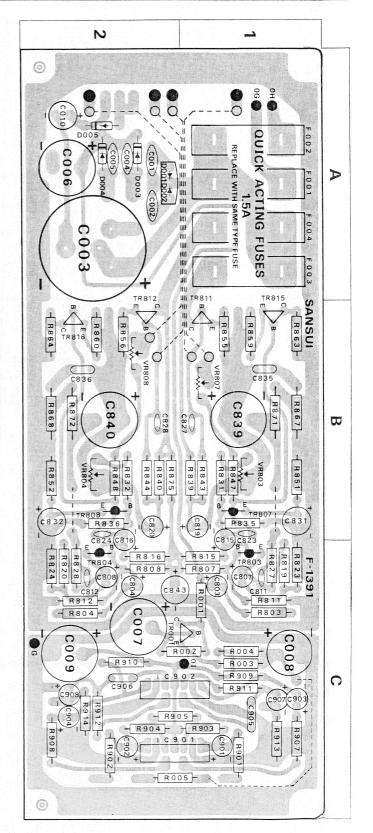
# PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. X: Parts Name Y: Stock No. Z: Position of Parts

# REAR CHANNEL, POWER BLOCK (F-1391-1)

W	X	Y	Z	W	X	Y	7
2001	4.7 \( \O \)	0101479	1 C	VR804	200kΩ (B) AC Balance Adj.	1031152	2 B
₹002	$4.7k\Omega$ ±10% ¼W CR.	0101472	1,2C	VR807	1	1031022	2 B
2003	47Ω ±10% ½W SR.	0111470	10	VR808	200Ω (B) DC Bias Adj.	1031022	2 B
004	47.0)	0111470	1C				
005	56 Ω	0101560	1, 2 C	C001	0.047µF) +80% 50 V CC	0657473	2 A
803	2.2kΩ	0101222	10	C002	$0.047 \mu F$ $+80\%$ 50 V CC.	0657473	2 A
804	2.2kΩ	0101222	2C	C003	2200μF 35 V EC.	0549005	2 A
807	390kΩ	0101394	10	C004		0657473	2 A
808	390kΩ	0101394	2 C	C005	$0.047 \mu F$ $+80\%$ 50 V CC. $0.047 \mu F$	0657473	2 A
	220kΩ	0101224	10	C006		0515331	2 A
R811	220kΩ	0101224	2 C	C007	330μF 50 V EC. 330μF)		20
812	4.7kΩ	0101472	10	C008		0514331	10
815	4.7kΩ	0101472	2 C	C009	. ,	0514101	20
₹816	1	0101222	1C	C010	330μF)	0514331	1
R819	2.2kΩ	0101222	2 C	C803	100μF 10 V EC.	0511101	2 A
₹820	2.2kΩ	0101222	10	C804	$1\mu$ F 50 V EC.	0515109	10
R823	82 Ω				1μFJ	0515109	20
R824	82 \O	0101820	2 C	C807	100μF) 6.3 V EC.	0510101	10
R827	8.2kΩ	0101822	10	C808	100μF)	0510101	20
R828	8.2kΩ	0101822	2C	C811	100pF ±10% 50 V CC.	0660101	10
R831	$47k\Omega$ \ $\pm 10\%$ 1/4W CR.	0101473	1 B	C812	100pF)	0660101	20
R832	47kΩ	0101473	2 B	C815	$10\mu F$ 16 V EC.	0512100	18
R835	15kΩ	0101153	1 B	C816	10μFJ	0512100	2 B
₹836	15kΩ	0101153	2 B	C819	$10\mu F$ 25 V EC.	0513100	I B
R839	lkΩ	0101102	1 B	C820	10μF)	0513100	28
R840	lkΩ	0101102	2 B	C823	47pF)	0660470	1 B
₹843	2.2kΩ	0101222	1 B	C824	47pf \ ±10% 50 V CC.	0660470	2 B
₹844	2.2kΩ	0101222	2 B	C827	220pf ±10% 30 V CC.	0660221	18
₹847	22Ω	0101220	1 B	C828	220pF)	0660221	2 B
R848	22Ω	0101220	2 B	C831	$100\mu\text{F}$ 6.3 V EC.	0510101	1 B
R851	220Ω	0101221	1 B	C832	100με)	0510101	2 B
R852	220Ω	0101221	2 B	C835	$0.033 \mu F$ $\pm 10\%$ 50 V MC.	0601337	1 B
R655	220Ω	0101221	1 B	C836	0.033μF) ±10% 30 V MC.	0601337	2 B
R856	220Ω	0101221	2 B	C839	1000μF)	0513102	1 B
R859	33Ω	0101330	1 B	C840	1000μF) 25 V EC.	0513102	2 B
<b>R</b> 860	33Ω	0101330	2 B	C843	100μF 10 V EC.	0511101	1, 2
R863	220Ω	0101221	1 B	C901	1μF)	0515109	10
R864	220Ω′	0101221	2 B	C902	1μF	0515109	2 C
R867	22Ω)	0111220	2 B	C903	$1\mu F$ 50 V EC.	0515109	10
R868	220	0111220	1 B	C904	1μF)	0515109	2 C
R871	$330\Omega$ $\pm 10\%$ ½W SR.	0111331	2 B	C905	0.1 µF)	0601108	10
R872	330Ω	0111331	1 B	C906	$0.047 \mu F$ $\pm 10\%$ 50 V MC.	0601477	20
R875	22kΩ ±10% ½W CR.	0101223	28	C907	1 µF)	0515109	10
R901	47kΩ)	0101473	1C	C908	$1\mu$ F 50 V EC.	0515109	20
R902	47kΩ	0101473	2 C				
R903	100kΩ	0101104	1 C	TRoot	2SC971 (2)	0005500	1.
R904	100kΩ	0101104	2 C	TR803	25C9/1 (2)	0305530	1, 2
R905	2.7kΩ	0101272	1, 2 C		2SC536 (G)	0305156	10
R907	15kΩ	0101153	1C	TR804 TR807	R	0305156	2 C
R908	$15k\Omega \rangle \pm 10\%         $	0101153	2 C		2SC536 (F)	0305155	1 B
R908	100kΩ (±10/0 /4 · · · · · · ·	0101104	1C	TR808	K	0305155	2 B
	100kΩ	0101104	2C	TR811	2SC634A (6, 7)	0305891, 2	1 A
R910	5.6kΩ	0101562	1C	TR812	R	0305891, 2	2 A
R911	5.6kΩ	0101562	2 C	TR815	2SA678 (6, 7)	0300291, 2	1 A
R912	100kΩ	0101104	10	TR816	)	0300291, 2	2 B
R913	100kΩ	0101104	2C				
R914	100875	0.01104		IC901	1	0820031	1, 2
VR803	200kΩ (B) AC Balance Adj.	1031152	1 B	IC902	Hybrid IC	0820031	1, 2

W	X	Υ	Z
D001		0310680	2 A
D002	10DC1	0310680	2 A
D003		0310870	2 A
D004	SR1FM2	0310870	2 A
D005	10005	0310880	2 A
<b>F</b> 001	Front Left )	0433222	1 A
F002	Front Right	0433222	1 A
F003	Rear Left Quick Acting Fuse (1.5A)	0433222	1 A
	Rear Right	0433222	1 A



# OTHER PARTS AND THEIR POSITIONS ON CHASSIS

W: Parts No. X: Parts Name Y: Stock No.

### OTHER PARTS

W	X	Y
R006	33Ω	0101330
R425	33kΩ	0101333
R651	220kΩ	0101224
R652	220kΩ	0101224
R653	100kΩ	0101104
R654	$\frac{100 \text{k}\Omega}{2010}$ ± 10% $\frac{1}{4}$ W CR.	0101104
<b>R</b> 751	33kΩ = 15/5 /4 11 5/11	0101333
R752	33kΩ 33kΩ	0101333
R753	33kΩ	0101333
R754 R755	56kΩ	0101563
R756	56kΩ)	0101563
R881	2200)	0111221
R882	$\frac{12001}{220\Omega}$ ± 10% ½W SR.	0111221
R915	1840)	0101183
R916	$18k\Omega$ $\pm 10\%$ ¼W CR.	0101183
C011	0.01μF 1.4kV CC.	065980
C012	220 μF 16 V EC.	0512221
C013	$0.022 \mu$ F $^{+80}_{-20}\%$ 50 V CC.	0657223
C701	1 uF)	051510
C702	1 µF) 50 V EC.	051510
C751	0.01μF)	060110
C752	$0.01\mu F$ $\pm 10\%$ 50 V MC.	060110
C753	$0.01 \mu$ F	060110
C754	0.01 μF)	060110
C755	$150 pF$ $\pm 10\% 50 V CC.$	066015
C756	150pF) = 1070 00 7 00.	
VR 701∼702	250kΩ (B) × 2 Front Channel Volume	104012
VR 703~704	250kΩ(B)×2 Rear Channel Volume	104012
VR 705~706	100kΩ (B) × 2 Bass Control	101076
VR 707~708	$100k\Omega(B) \times 2$ Treble Control	
TR817~824	2SD330 (D, E)	0308361,
D407	DS-410	034003
D801~804	SV3A	034007
PT001	Power Transformer	400105
L301	AM Bar Antenna Microinductor	420028
L302	Tuning Metar	430026
M001		
\$1(a~p)	Selector Switch	110419
\$2(a, b)	Tape Monitor Switch Synthesizer/Decoder Switch	113040
\$3(α~e) \$4	Power Switch	11900
		!
<b>J</b> 001	Headphones Jack	24301- 24300-
J002	DIN Jack	24500-
	AC Outlet	
CO001		04200
PL001	6.3V 250mA)	
PL001 PL002, 003	6.3V 250mA Pilot Lamp	04200
PL001 PL002, 003 PL004, 005	6.3V 250mA Pilot Lamp 7 V 200mA	042003 • 400153
PL001 PL002, 003	6.3V 250mA Pilot Lamp	04200

#### \_\_\_Abbreviations\_\_\_

CR : Carbon Resistor SR : Solid Resistor

CC : Ceramic Capacitor

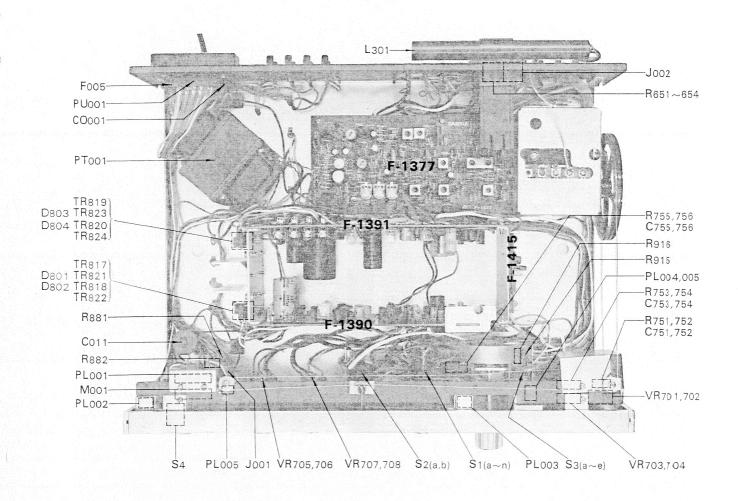
EC : Electrolytic Capacitor

MC : Mylar Capacitor

SC : Styrol Capacitor

MiC: Mica Capacitor

AEC: Aluminium Solid Electrolytic Capacitor





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